

MANUFACTURE OF SEMICONDUCTOR SUBSTRATE

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PURPOSE: To provide a working method of a semiconductor substrate wherein its productivity; its uniformity, its controllability and its cost are excellent when Si whose crystallinity and surface flatness are as excellent as those of a single-crystal wafer is obtained on an insulating layer.

CONSTITUTION: The manufacturing method of a semiconductor substrate is provided with the following: a process wherein a silicon substrate is made porous; a process wherein a non-porous silicon single-crystal layer 12 is formed on the porous substrate and a first substrate is formed; a process wherein, after the surface of the non-porous silicon single-crystal layer has been pasted on a second substrate 13 via an insulating layer, a silicon substrate 15 which has been made porous is immersed in a chemical etching solution and porous Si is removed; and a process wherein a heat treatment is executed in a reducing atmosphere at a temperature which is lower than the melting point of single-crystal silicon.